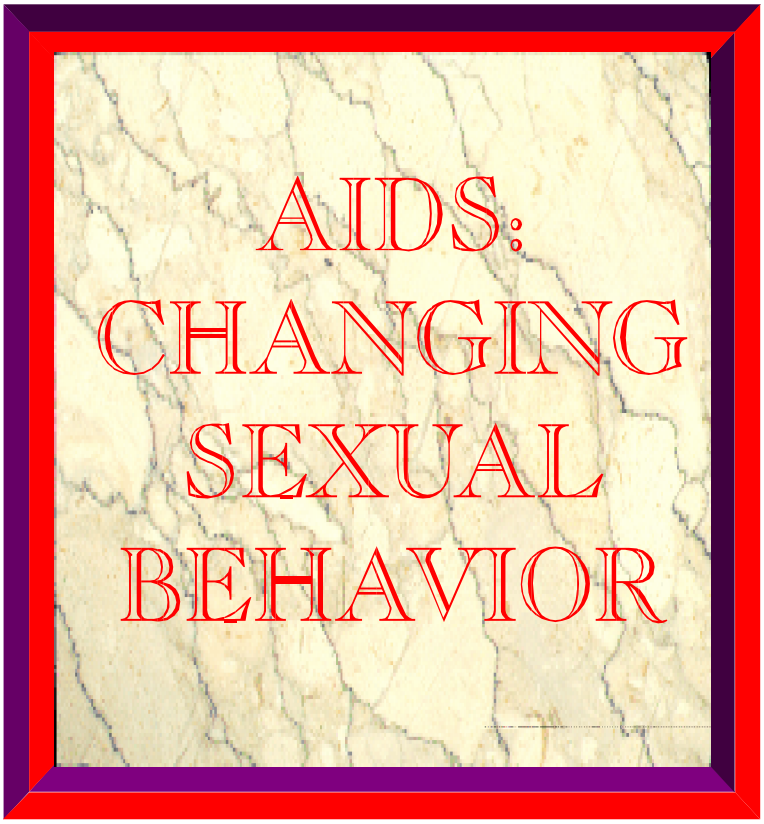
AIDS:
CHANGING
SEXUAL
BEHAVIOR

An Information Package
and
Selected Bibliography

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TABLE OF CONTENTS

MIXED GLOBAL PROGRESS AGAINST AIDS
The Christian Science Monitor
December 1, 1997, Monday

BODY: The disease known as AIDS continues to spread rapidly in much of the world. But it is declining significantly in places where AIDS awareness is high, causing people to change the behaviors that put them at risk.

As the United Nations observes the 10th annual World AIDS Day today, those countries where AIDS awareness programs are implemented and backed by government clout - including most rich and some poor countries - have made progress against the disease.

In the United States, the largest drop in AIDS (acquired immune deficiency syndrome) cases has been among homosexual men, "the very group which sought and benefited from the most open exchange of information about the risks of unprotected sex in the early years of the epidemic," said Peter Piot, executive director of the Joint United Nations Program on HIV/AIDS (UNAIDS), at a press conference in Paris last week.

But the AIDS epidemic remains a massive and growing imposition on the lives of people in the developing world, where a UN report released last week estimates that 90 percent of the people with HIV or AIDS live.

The spread of AIDS in countries such Brazil, Zimbabwe, and Thailand is reversing progress in quality of life, says a new World Bank study, independent of the UN report.

The UN report estimates that globally:

* Of an estimated 30.6 million people living with HIV/AIDS today, two-thirds live in Sub-Saharan Africa.

* Sexually active adults are the most at risk, doctors say. An estimated 1 in 100 adults in the 15 to 49 age group have HIV. Even so, the UN estimates nearly 1.1 million children under the age of 15 are also living with AIDS.

* Some 16,000 people get the AIDS virus every day of the year, says the report. Only 1 in 10 are aware of their HIV status.

But experts also note vast differences in the way AIDS spreads in each region and nation.

In sub-Saharan Africa, the most common mode of transmission is heterosexual contact. The southern part of the continent continues to be the worst affected by HIV. In South Africa, for instance, 2.4 million citizens live with HIV, up by more than a third over 1996. In Zimbabwe, nearly 1 in 5 adults has the HIV virus.

But education programs that teach people to avoid intravenous drugs and sexual promiscuity appear to have a dramatic effect. Even in eastern Africa, site of one of the first AIDS outbreaks in the 1970s, Uganda has reported a decline in infection rates.

Uganda's example

The decline has been most marked among younger Ugandans, an indication that young people are adopting safer sexual behavior than was common a decade ago.

For its part, western Europe has become somewhat of a role model in the fight against AIDS. Doctors there expect to find 30 percent fewer new AIDS cases in 1997 than they did in 1995. (The United States also cited a 6 percent decline in new AIDS cases last year, and expects a similar decline this year.)

The forces behind this overall decline range from more aggressive medical treatments - fewer HIV cases are developing into AIDS - to simple changes in habits and hygiene, says Mr. Piot of UNAIDS. Promoting baby formula instead of breast-feeding, for example, has helped lower mother-to-child transmission of the disease, experts say. First-world wealth has helped as well.

"Things are looking better here because they're richer and they can afford the ... treatment," says Karin Blanc at the Geneva-based UNAIDS. Medical treatment can cost as much as $15,000 a year per patient.

But on the proactive side, education also plays a major role. The greatest decline in new AIDS cases has been among homosexual men, in whom HIV rates have been dropping for some years, and AIDS activists attribute that change in large part to greater awareness about prevention.

Concern in Russia

In contrast to the Western European model of control and swift action, Russia presents a case study of neglect. The number of HIV cases may be low now, around 3,000 this year, but experts say they will skyrocket unless public awareness programs are beefed up.

"The problem is with propaganda, with social aspects, with outreach work," says Dr. Alexander Goliusov, the Health Ministry's chief AIDS specialist.

In Russia's shaky transition to a market economy, drug abuse is soaring, and 76 percent of new HIV cases in Russia are being found among hard drug users. Within a couple of years, however, doctors expect sexual relations to be the leading source of AIDS.

But conservative attitudes both in government and in the powerful Russian Orthodox Church have kept sex education out of the school curriculum.

"The general philosophy on sex education is 'they'll learn on their own when it's necessary,' "says Brigg Reilley, an anti-AIDS activist with Doctors Without Borders. "Well, they're learning through sexually transmitted diseases."

In Asia, meanwhile, the kingdom of Thailand has become both a caution sign for its neighbors and a model of how to address the problem of AIDS. As many as 800,000 of Thailand's 60 million population are estimated to have HIV.

Driving this AIDS epidemic, experts say, is a cruel combination of increased mobility, ignorance, and traditionally casual attitudes toward sex.

"As people got richer in Asia they started moving more and there were more opportunities for casual sex," says a UN worker in Bangkok.

Some residents say that AIDS may force Thais to confront their sexual mores. "The social values of men are playing a part in promoting the spread of AIDS," notes Chanthana Kinkaew, a Bangkok resident. "It is still acceptable for Thai men to visit prostitutes after they are married."

Until these attitudes change, AIDS workers are turning to creative, if somewhat unorthodox, methods for promoting "safe sex." Thai AIDS activist Mechai Veravaidya, has tackled by enlisting the help of prostitutes in conducting surveys and promoting the use of condoms. He uses such slogans as: "Diamonds aren't a girl's best friend. Condoms are!"

Compared with its neighbors, Thailand's statistics may seem high. But the disparity may just be a sign that other countries are not yet addressing the problem.

Facing facts?

"Indonesia reported just 800 AIDS cases ... That's just not realistic," says a UN worker in Bangkok. The Burmese junta puts its AIDS tally at around 10; health organizations put the number at closer to half a million people.

Not everyone is turning to education or medicine. In Cambodia, for instance, a group of former Khmer Rouge women guerrillas, armed with AK-47s and machetes, recently forced the closure of a string of brothels in northwest Cambodia. Their purpose, they said, was to stop the spread of AIDS.

* Contributing to this report were staff writer Nicole Gaouette in Paris, and contributors Yvan Cohen in Bangkok , Kurt Shillinger in Johannesburg, and Ryan Hawkins in Moscow.

Estimates of HIV/AIDS Cases

Sub-Saharan Africa	20.8 million
South and South-East Asia	6.0 million
Latin America	1.3 million
North America	860,000
Western Europe	530,000
East Asia, Pacific	440,000
Caribbean	310,000
North Africa, Middle East	210,000
Eastern Europe, Central Asia	150,000
Australia, New Zealand	12,000

Source: Joint United Nations Program on HIV/AIDS

BEHAVIORAL SCIENCE AND PUBLIC HEALTH: A NECESSARY PARTNERSHIP FOR HIV PREVENTION

U.S. Department of Health and Human Services
Public Health Reports
September 1, 1996

We are now in the second decade of the AIDS epidemic in the United States. As of October 31, 1995, a total of 311,381 U.S. citizens had died from AIDS, another 189,929 had been diagnosed with AIDS (1), and it is estimated that nearly 1 million persons are infected with HIV, the virus that causes AIDS (CDC). Despite the best efforts of biomedical researchers, we still have neither a cure nor a vaccine to prevent this deadly disease. Yet AIDS is a preventable disease; AIDS is first and foremost a consequence of behavior. It is not who you are, but what you do that determines whether or not you expose yourself to HIV. As Kelly, et al. (2), have pointed out, the task confronting the behavioral sciences in HIV prevention is to develop theory-based intervention programs to reduce risky, and increase healthy, behaviors. This special issue focuses upon methodological issues associated with the development, implementation, and evaluation of such theory based behavior change interventions (3).

To a certain extent, all behavior change interventions are theory-based. That is, they are based on one's implicit or explicit assumptions or "theory" about why people behave the way they do. For example, many people believe, assume, or theorize that the more one knows about HIV and how it is transmitted, the more likely one will be to avoid performing those behaviors that put one at risk for HIV infection. Given this "theory," one is likely to develop an educational intervention designed to provide clients with information about HIV and AIDS, including how HIV is transmitted and the course of the disease. And indeed, as described by Doll and Kennedy (4) and Kamb, Dillon, Fishbein, and Willis (5), much of the early "counseling" in publicly funded HIV counseling and testing programs was designed to teach clients about HIV and its modes of transmission. This same approach has been followed in many school-based HIV prevention programs. Unfortunately, this approach failed to utilize the extensive behavioral science literature that has consistently found that having information about a disease and how it is spread does not necessarily increase the likelihood that one will take preventive action (6, 7).

While having information about a disease and how it spreads is unlikely to lead to behavior change, other types of information can strongly influence a person's decision to perform (or not perform) a given behavior (8). What the behavioral sciences have to offer to those interested in developing effective interventions is a clearer understanding of the types of information that people need for changing or maintaining a given behavior. Rather than basing a behavior change intervention upon possibly invalid or incorrect assumptions about behavior, scientists, clinicians, and public health workers should take advantage of the information that is currently available about behavior and its determinants. More specifically, behavioral science theory and research can provide important insights into why people behave the way they do. Clearly, the more one understands the factors influencing (or underlying) a person's decision to perform (or not perform) a given behavior, the more likely one is to develop interventions that can effectively change that behavior.

Behavioral science theory and research also suggest that the most effective interventions are those directed at a specific behavior. As we will describe, every behavior has its own unique determinants, and very different interventions are required to change different behaviors. Perhaps the most difficult part of developing any intervention is the identification of the behavior (or behaviors) that one wishes to change. All too often, interventions are directed at increasing the probability that one will reach a given goal (for example, to avoid AIDS, to stay healthy) or engage in a category of behaviors (such as practicing safe

sex, negotiating condom use) rather than at increasing the probability that one will engage in a specific behavior (always using a condom for vaginal sex with one's main partner, or telling one's partner to always use a condom. Only the latter type of intervention is likely to be successful in changing behavior.

The distinction between goals, behavioral categories, and behaviors is not always obvious. For example, while condom use is a behavior for men, it is a goal for women. Further, even among men, condom use is not a specific behavior, but a behavioral category. That is, one does not just "use a condom." Instead, condoms are used for given sexual activities with specific partners, and the factors influencing the use of condoms for vaginal sex with ones main partner or spouse, for example, are quite different than those underlying the use of condoms for vaginal sex with an occasional partner or the use of condoms for anal sex with ones main partner. The uniqueness of behavioral determinants can best be illustrated by briefly considering the four theories that have most strongly influenced much of the CDC's AIDS behavioral prevention research: the Health Belief Model (9, 10, 11), Social Cognitive Theory 12, 13, 14), the Theory of Reasoned Action (7, 15, 16), and the Transtheoretical Model of Behavior Change (17, 18, 19).

The Health Belief Model

According to the health belief model, the likelihood that someone will adopt (or continue to engage in) a health-protective behavior is primarily a function of two factors. First, the person must feel personally threatened by the disease. That is, he or she must feel personally susceptible to (or at risk for) a disease with serious or severe consequences. Second, the person must believe that the benefits of taking the preventive action outweigh the perceived barriers to (and/or costs of) taking that action. Note that the costs and benefits of performing one behavior (such as always using a condom for vaginal sex with ones spouse) may be very different than those associated with performing another behavior (such as always using a condom for vaginal sex with an occasional partner).

Social Cognitive Theory

Social cognitive theory also identifies two factors as primary determinants underlying the initiation and persistence of an adaptive behavior. First, the person must have self-efficacy with respect to the behavior. That is, the person must believe that she or he has the capability to perform the behavior in question under a number of different circumstances. Second, one must have some incentive to perform the behavior. More specifically, the expected positive outcomes of performing the behavior must outweigh the expected negative outcomes. Social cognitive theory has focused on three types of perceived (or expected) outcomes: physical outcomes (performing the behavior will protect me from AIDS); social outcomes (performing the behavior will make my partner angry); and self-standards (performing the behavior will make me feel guilty).

The Theory of Reasoned Action

According to the theory of reasoned action, performance or nonperformance of a given behavior is primarily determined by the strength of a person's intention to perform (or to not perform) that behavior, where intention is defined as the subjective likelihood that one will perform (or try to perform) the behavior in question. The intention to perform a given behavior is, in turn, viewed as a function of two basic factors: the person's attitude toward performing the behavior (one's overall positive or negative feeling with respect to personally performing the behavior) and/or the person's subjective norm concerning the behavior (the person's perception of normative pressure to perform [or to not perform] the behavior in question).

The theory of reasoned action also considers the determinants of attitudes and subjective norms. Attitudes are viewed as a function of behavioral belief (beliefs that performing the behavior will lead to certain outcomes) and their evaluative aspects (the evaluation of these outcomes); subjective norms are viewed as a function of normative beliefs (beliefs that a specific individual or group thinks one should or should not perform the behavior in question) and motivations to comply (the degree to which, in general, one wants [or does not want] to do what the referent thinks one should do). Generally, the more one believes that performing the behavior will lead to positive outcomes or will prevent negative outcomes, the more favorable will be one's attitude toward performing the behavior. Similarly, the more one believes that specific referents (individuals or

groups) think that one should (or should not) perform the behavior, and the more one is motivated to comply with those referents, the stronger will be the perceived pressure (the subjective norm) to perform (or to not perform) that behavior.

Based upon these three theories, one can identify four factors that may influenced a person's intentions and behaviors:

1. The person's perception that he or she is personally susceptible to acquiring a given disease or illness.

2. The person's attitude toward performing the behavior, which is based upon his or her beliefs about the positive and negative consequences of performing that behavior.

3. Perceived norms, which include the perception that others in the community are also changing, and that those with whom the person interacts most closely support the person's attempt to change.

4. Self-efficacy, which involves the person's perception that he or she can perform the behavior under a variety of circumstances.

While there is considerable empirical evidence to support the role of attitude (or outcome expectancies), perceived norms, and self-efficacy as determinants of intention and behavior, this is not the case for perceived susceptibility (or perceived risk). Particularly in the AIDS area, there is growing evidence that perceived risk of exposure to HIV (or of getting AIDS) is, in many cases, unrelated to the likelihood that one will take any given preventive action. Indeed, it appears that although perceiving oneself at risk for AIDS may be a necessary first step in a change process, whether one does or does not change depends primarily on one's attitudes, norms, or self-efficacy (20).

The relative importance of these three factors as determinants of intention and behavior is expected to vary as a function of both the behavior and the population being considered. That is, while some behaviors are determined primarily by attitudinal considerations, others are determined primarily by norms or self-efficacy. Equally important, a given intention (or behavior) may be influenced primarily by attitudes in one population, but be influenced primarily by norms or self-efficacy in another population. For example, while sexually experienced US. male college students' intentions to always use condoms were found to be primarily under normative control, this same intention was found to be primarily under attitudinal control in a sample of sexually experienced male college students in Mexico City (21). Therefore, prior to developing an intervention, it is important to conduct formative research to determine empirically whether, in a given population, a specific intention (or behavior) is determined primarily by attitudes, by norms, by self-efficacy, or by two or all three of these factors.

If the results of formative research indicate the attitude is a primary determinant of behavior, then one should direct the intervention toward changing people's beliefs about the consequences of performing that behavior. As indicated previously, the more one believes that performing a given behavior will lead to positive outcomes and prevent negative ones, the more favorable will be ones attitude toward performing that behavior. Similarly, the more one believes that performing the behavior will lead to negative outcomes or prevent positive ones, the more unfavorable will be one's attitude. Thus, with respect to any given behavior, it is important to identify the beliefs about performing that behavior that are held by the members of the population being considered. The intervention then can be directed at those beliefs that differentiate between those who do and do not perform the behavior. That is, if one finds that a given belief is held by those who perform the behavior but not by those who do not perform the behavior, the intervention can be designed to provide information to strengthen this belief.

If perceived norms are found to be a primary determinant of behavior, then one should direct the intervention at changing community norms or at changing people's perceptions of the normative proscription of relevant others, or both. In order to do this, one must first identify the individuals or groups that serve as relevant others for the members of the population being considered. Then one must determine whether these relevant others are viewed as supporting or opposing the performance of the behavior. The intervention can then be directed at clarifying misperceptions or providing new referents who support the behavior.

Finally, if self-efficacy is found to be a primary determinant of the behavior under consideration, then the intervention should be directed at increasing the population's self-efficacy with respect to performing that behavior. In order to do this, one must first identify those circumstances that members of the population view as barriers to, or facilitators of, behavioral performance. The intervention can then be directed at removing, or helping members of the population overcome, those barriers, for example, by providing necessary skills training.

In addition to conducting formative research to identify which of these factors are the most important determinants of a given behavior in a given population, knowing where an individual is in a change process is also necessary. Behavior change is usually not a one-step, all-or-nothing process, but often involves a series of steps along a behavior-change continuum. Clearly, different behavior change messages will be necessary for a person who has not even thought about adopting a preventive health behavior than for a person who is trying to adopt that behavior. The Transtheoretical Model of Behavior Change directly addresses this issue.

Stages of Behavior Change

According to the transtheoretical model, adoption of a new behavior may involve five distinct stages of change (SOC). Many individuals who are performing risky behavior may have no intention to change that behavior or to adopt a given preventive health behavior (precontemplative stage). Any one of several events (for example, perceiving that one is personally at risk for an illness) may then lead the individual to consider change and perhaps to form an intention to adopt the behavior immediately or at some time in the future (contemplative stage). This immediate intention is often accompanied by initial, perhaps exploratory, attempts to adopt the behavior (preparation or ready for action stage). Then the new behavior is adopted (action stage), and ultimately it becomes a routine part of one's life (maintenance stage). Movement through the stages is assumed to be sequential, although people may skip certain stages or relapse (at any stage) and cycle back through the stages repeatedly before achieving long-term maintenance.

According to this stage of change model, in order to help people change their behavior, one should first determine where each person is on this continuum of behavior change and then develop interventions to help him or her move to subsequent, more advanced stages. The model further suggests that different behavior change processes, such as consciousness raising and self-reinforcement, are necessary at different stages. More specifically, it has been suggested that interventions focusing on cognitive and emotional factors will be most influential in early stages, while action-oriented approaches will be more effective in later stages (18). This hypothesis is currently being tested in several of the CDC's intervention projects (22, 23, 24). Irrespective of the validity of this hypothesis, having discrete and immediate objectives for persons at risk for HIV infection allows one to more precisely target an intervention to individual needs. For example, one can determine empirically which of the theoretical factors (such as norms, attitudes, or self-efficacy) one needs to focus on to move a person from one stage to the next.

The previous discussion raises a number of methodological challenges to HIV prevention researchers. Not only must one develop valid and reliable measures of attitudes, perceived norms, and self-efficacy, but if one is to change these variables, one must identify and assess the beliefs (or outcome expectancies) underlying the attitudes, the normative beliefs underlying perceived norms, and the circumstances that influence a person's perception that he or she can (or cannot) perform the behavior in question. In addition, a valid and reliable measure is needed to locate respondents on the stage of change continuum. Two studies described in this volume address these issues. Middlestadt, et al. (25) describe how formative research involving elicitation procedures can lead to the development of culturally sensitive, fixed-item instruments to assess behavioral beliefs, normative beliefs, and self-efficacy, while the paper by Schnell, et al. (26) describes the development of an algorithm for measuring stages of change.

Even before assessing these variables, however, obtaining knowledge of the target population is necessary. To mount an effective intervention, one must know the size, composition, and mobility of the population in question. In particular, one should determine whether there are subpopulations that must be considered. In addition, it is important to understand the language and customs of these subpopulations, their sources of information, and the prevalence of the behaviors that are putting them

at risk. Finally, and perhaps most important, one must determine where, when, and how these populations can be accessed, both for the delivery of the intervention and the assessment of its effectiveness. Studies by Higgins, et al. (27) and Goldbaum, et al. (28) describe and illustrate how ethnographic research can be used to obtain this information.

Once obtained, this information should guide decisions about how (via mass media or small media, in groups, in one-on-one interactions), where (in clinics, community. based organizations, other fixed-location sites, or "on the streets"), and by whom (trained counselors, outreach workers, paraprofessionals, or community volunteers) the intervention should be delivered. Many of the papers in this supplement deal with some of the methodological issues involved in implementing these decisions. For example, several of the projects being evaluated by the CDC and its partners have chosen to deliver interventions through the use of role model stories. Corby, et al. (29) describe methods for developing theory-based stories for small media (such as pamphlets, community newsletters). These types of small media are often distributed by community volunteers. Guenther-Grey, et al. (30) and Simons, et al. (31) describe and illustrate how volunteer networks have been established and maintained.

Interventions (including the distribution of small media materials) also may be delivered by paraprofessionals and outreach workers, and the role and training of outreach workers and paraprofessionals are discussed by Valentine and Wright-DeAguero (32), Cabral, et al. (22) and Cheny, et al. (23). One study (32) makes an important distinction between contacts and encounters, while others (22, 23) show how paraprofessionals and outreach workers can be trained to deliver theory-based interventions. Kamb, et al. (5) focus explicitly on quality assurance issues in a multi-site randomized trail of counseling and testing in STD clinics. Finally, Person, et al. (24) present a framework for mobilizing a community to participate in, and sustain, an intervention.

Holtgrave, et al. (33) address the role of the community in HIV prevention planning. They focus on methods to evaluate the effectiveness of the CDC's newly established community planning process. One of the key questions that concerns community planners, and should concern anyone mounting an intervention, is, "How much win it cost?" Gorsky (34) attempts to answer this question by providing a methodology for cost assessment.

While most interventions are, by their very nature, geographically limited and targeted to a specific population, it is also important to obtain national data on the prevalence and incidence of AIDS and HIV infection, as well as on the prevalence of behaviors and other psychosocial factors that may contribute to HIV exposure. Data such as these help one target interventions by providing important input to epidemiologic analyses of HIV and AIDS. In addition, by monitoring AIDS-related knowledge, attitudes, beliefs, and practices, one gains valuable insights to guide the development of interventions (see, for example, Fishbein, et al., [35]). Although the field of behavioral surveillance is just beginning to emerge, its potential importance to AIDS prevention justifies its inclusion in this issue. Four studies describe CDC's activities in this domain. First, Safran and Wilson (36) describe three national survey systems coordinated by CDC: the National Health Interview Survey, the Behavioral Risk Factor Surveillance System, and the Youth Risk Behavior Surveillance System. Second, Anderson (37) describes CDC's Counseling and Testing Surveillance System and points out how data from this clinic-based system relate to data from the National Health Interview Survey. Buehler, et al. (38), describe the Supplement to HIV/AIDS Surveillance, which focuses on behaviors and access to services among those already. infected with HIV or having AIDS. Finally, MacKellar, et al. (39) describe the sampling methodology used to conduct the Young Men's Survey, which is designed to estimate the prevalence of HIV infection and related risk factors in populations of young men who have sex with men.

Behavioral interventions are key components of the national HIV prevention program. To develop an intervention for a given community, the determinants of behavior in that particular population must be ascertained. Then the intervention must be developed based on knowledge of these determinants and on theories of behavior and behavior change. This issue contains an in-depth description of how this can be done in public health settings. A partnership between behavioral scientists and public health workers is necessary for developing appropriate interventions for HIV

prevention. One of the purposes of this special edition is to provide public health workers with an understanding of behavioral methodology. In doing so, our aims are to break down barriers that may exist between behavioral scientists and traditional public health workers and to strengthen partnerships that will be necessary for implementing effective HIV prevention programs in the United States.

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AIDS EDUCATION SESSIONS SUCCESSFUL

A. Okie
Washington Post
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(Following FS Material Not for Publication)

A large, multi-city study of urban blacks and Hispanics at high risk of contracting the AIDS virus has found that those who attended small-group educational and counseling sessions used condoms more often and had unprotected sex less frequently. The results suggest that implementing similar prevention efforts more widely could help to slow the AIDS epidemic.

The study of more than 3,700 inner-city clinic patients, published today in the journal Science, also found that participants reported fewer symptoms of sexually transmitted diseases (STDs), and fewer cases of gonorrhea among men, than a comparison group in the year following the program. Such diseases have been shown to boost a person's chances of transmitting and contracting the human immunodeficiency virus (HIV), which causes AIDS.

The findings, together with those of another recent study of STD clinic patients, offer hope that prevention programs can slow the march of AIDS, even among hard-to-reach groups in the inner cities, where the virus is spreading fastest. Although new

treatments have reduced AIDS deaths in the United States in recent years, HIV continues to spread, especially among young people, women, blacks and Hispanics.

The study adds to a growing body of evidence supporting the effectiveness of various prevention strategies -- including needle exchange programs for drug addicts and sex education programs for adolescents. AIDS experts and activists called on policymakers to put such strategies into greater practice.

"It did take a while to get the science into place. Now . . . it's there," said Karen Hein, an AIDS specialist and the executive officer at the Institute of Medicine who wrote a commentary accompanying the study. "Now, perhaps the focus ought to be on policy and politics."

"Prevention has not been a priority for the nation," said Daniel C. Zingale, executive director of AIDS Action, a network of more than 2,400 AIDS service organizations. "If there were a medical vaccine, just imagine the forces that would be deployed. Now we have prevention as a virtual vaccine, and it's stagnant."

The new study, funded by the National Institute of Mental Health (NIMH), recruited participants from 37 clinics in several urban areas: New York City and northern New Jersey, Baltimore, Atlanta, Milwaukee, Los Angeles and California's Orange and San Bernardino counties. All were at least 18 years old, had recently engaged in unprotected sex and were at high risk for HIV infection because they had a new sexual partner, multiple partners or a partner who had HIV or was a drug addict.

Sixty-eight percent of the 3,706 participants identified themselves as African American, 20 percent as Hispanic and 12 percent as belonging to other racial or ethnic groups. Only about 30 percent were employed. Almost half reported that they had not used condoms in the preceding three months. More than 80 percent said they had previously been tested for HIV infection.

Half of the participants were randomly assigned to attend a prevention program composed of seven small-group sessions, each lasting 1 1/2 to 2 hours, on how to change risky sexual behaviors and reduce their chances of becoming infected. The other half were assigned to a control group whose members attended a one-hour AIDS education session. Participants were paid about $15 to attend each session. Both groups were then questioned about sexual practices and STDs every three months for a year.

At each assessment, both groups reported more frequent condom use and fewer episodes of unprotected sex than they had at the beginning of the program. But those who participated in the small-group sessions reported greater changes in behavior. For instance, condom use among the control group increased from 21 percent at the start of the program to 48 percent a year later. In the small-group participants, it increased from 23 percent to 60 percent. Both groups reported that they maintained their changes in behavior during the year following the program.

When questioned about STDs, significantly fewer small-group session participants reported symptoms of such infections than did control group members (27.9 percent vs. 34.6 percent). That difference wasn't reflectedin the overall frequency of STD infections diagnosed at clinics, which was the same in both groups. But men who attended the small-group sessions had fewer cases of gonorrhea (3.6 percent of partici pants) than men in the control group (6.4 percent).

Similarly encouraging results were obtained in a soon-to-be-published study by the Centers for Disease Control and Prevention on the effectiveness of individual AIDS-prevention counseling in STD clinic patients being tested for HIV. The study recruited 5,800 patients in five cities and compared the effectiveness of two 20-minute counseling sessions with more extensive counseling. A control group received two five-minute visits with a clinic doctor.

Both groups receiving the counseling reduced their overall frequency of STDs by about 30 percent, said Martin Fishbein of the University of Pennsylvania, an adviser on the project. Too few cases of HIV infection occurred during the one-year study to determine whether counseling reduced the frequency of new infections.

HIV prevention programs like those in the studies should be expanded, but research should continue to make sure that they actually slow the rate of new

HIV infections, said Thomas J. Coates of the University of California at San Francisco.

Some AIDS experts said that because the program tested in the NIMH study involved group sessions, it might be cheaper and more practical than individual counseling. Cost has been an obstacle to implementing such programs in many states, especially in financially strapped health departments.

The cost of the seven-session program -- $278 per participant -- is about the same as the cost of one week of treatment for an HIV-infected person with protease inhibitors, the newest and most effective AIDS drugs, said Steven E. Hyman, director of the National Institute of Mental Health. While funding for AIDS research and treatment programs has increased in recent years, federal funding for prevention has remained relatively flat. The CDC spends about $600 million a year on HIV prevention efforts.

"When it comes to prevention, the watchword is, give as little as possible and expect a lot," Coates said. "That's a misguided way to look at prevention. . . . We know a vaccine is a long way off. We know the treatments are imperfect and are going to be harder and harder to deliver. Prevention is still where it's at."

SETTING GOVERNMENT PRIORITIES IN PREVENTING HIV/AIDS: CONFRONTING THE AIDS EPIDEMIC

International Monetary Fund
Finance & Development [Vol. 35 (1)]
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Public policy has proved to be an effective weapon in containing the HIV/AIDS epidemic. Governments can have the greatest impact by providing incentives for those most likely to spread HIV to adopt safer behavior.

No cure has yet been found for the virus that causes AIDS, and an effective vaccine is still far off. The key to arresting the AIDS epidemic in developingcountries is preventing HIV infection by changing individual behavior. What actions can be taken to encourage such change, and to which of these should governments give priority?

Behavior change is key

The biological characteristics of HIV determine, to some extent, the rate atwhich it spreads, but human behavior plays a critical role in transmission. People who have many sexual partners and do not use condoms, and people who inject drugs and share unsterilized injecting equipment have the greatest risk of contracting HIV and unknowingly infecting others. Typically, the virus first spreads quickly in a series of small epidemics among those with the riskiest behavior; it then spreads more slowly from them to lower-risk individuals in the population at large. How quickly and extensively an HIV/AIDS epidemic spreads in a given population depends largely on the extent to which people with many sexual partners mix with people with fewer partners.

The World Bank Research Report Confronting AIDS: Public Priorities in a Global Epidemic finds that people who engage in high-risk behavior do act to reduce their risk of contracting and spreading HIV when they have the knowledge and means to do so and a supportive community. The report highlights three strategies to reduce risky behavior: providing information, lowering the costs of safer behavior, and raising the costs of risky behavior.

Awareness. Knowledge of how extensive HIV infection is in one's community, how the virus is transmitted, and how to avoid contracting it will induce some people to behave more safely - for example, by using condoms, reducing the number of sexual partners, sterilizing injecting equipment, or

avoiding needle sharing. In Thailand, the announcement in 1989 that 44 percent of sex workers in the northern city of Chiang Mai were infected with HIV is believed to have contributed to the growing use of condoms, even before the launching of large-scale government programs. Condom use by young adults in the United States doubled in the mid-to-late 1980s because of growing awareness of the risk of contracting HIV.

But knowledge alone is unlikely to change individual behavior enough to stop the HIV/AIDS epidemic. Many of the individuals who engage in high-risk behavior are likely to make decisions based on what they perceive to be their own risk of contracting HIV, while ignoring the risks to which their actions expose others. Even when considering their own risk of infection, many people persist in risky behavior because the costs of safer behavior are clear and immediate, while the benefits are uncertain and distant.

Lowering the costs of condom use and safe injecting behavior. Condoms are highly effective in preventing HIV transmission, but they entail costs - not only the money and time spent buying condoms, but potential inconvenience and embarrassment and, for some people, reduced pleasure. Reducing these costs will encourage more people to use condoms and lead to lower rates of HIV transmission. In Kinshasa, Democratic Republic of Congo, a program that offered sex workers free condoms, treatment for other sexually transmitted diseases, counseling, and group discussions had impressive results. A mere 11 percent of the sex workers had used condoms on an "occasional" basis before the program; afterwards, more than two-thirds reported using condoms on a "consistent" basis. The incidence of HIV - the number of new cases over time - dropped by two-thirds. At the same time, mass marketing of highly subsidized condoms - known as "social marketing" - in Kinshasa increased the willingness of clients to use them. Sixty developing countries now have condom social marketing programs, both for the prevention of sexually transmitted diseases and HIV infection and for family planning.

Injecting drug users face substantial costs in adopting safer behavior. For people who are truly addicted, drug treatment programs are often difficult to get into and painful to go through; 70-80 percent of those treated typically resume drug use within a year or two of completing treatment. The scarcity of sterile injecting equipment is one of the most important reasons why injecting drug users share needles and syringes, spreading HIV and other blood-borne diseases. The availability of sterile injecting equipment is highly restricted in many countries; possession of it may be illegal and lead to imprisonment.

"Harm-reduction" programs reduce these costs and increase safe injecting behavior among people who cannot stop injecting drugs. They include such measures as legalization of over-the-counter purchase of needles and syringes, bleach distribution, needle exchange, outreach by peer educators, and referral for drug treatment. Needle exchange programs, which provide new, sterile injecting equipment in exchange for used syringes, reduce needle sharing and remove contaminated needles from circulation. Such programs are credited with keeping HIV infection levels below 5 percent among injecting drug users in cities like Glasgow, Scotland, and Tacoma, United States, even as infection rates have soared to 40 percent or more in neighboring cities. In Kathmandu, Nepal, a program offering needle exchange, bleach, education, and health care to injecting drug users lowered the frequency of injection by one-third and the number of unsafe injections by one-half; HIV prevalence has remained low - less than 2 percent of injecting drug users - while the prevalence of HIV among injecting drug users in India and Myanmar has soared to 60 percent or more. Evaluations of these programs find no evidence that they encourage people to start injecting drugs, but there is substantial evidence that they reduce the types of behavior that spread HIV.

Raising the costs of risky behavior. An alternative strategy to reduce risky behavior is to make it illegal, more difficult, or costlier, for example, by enforcing laws against commercial sex or drug use, or by reducing the drug supply. Such a strategy may appeal to many people because both prostitution and the use of addictive drugs have substantial negative externalities for the rest of society - the spread of sexually transmitted and blood-borne diseases, higher crime rates, and increased expenditures on law enforcement and incarceration. However, attempts to prohibit or regulate these behaviors are costly and difficult to enforce, and rarely succeed in either eliminating or controlling them. Prohibition may discourage some people but merely drives

others "underground," where it is harder for public health programs to reach them, or it may simply "rearrange" the problem. When Singapore attempted to eradicate prostitution by closing "red-light" districts, brothels appeared in residential areas. Legalizing prostitution makes the legal segment of the commercial sex market easier to reach and regulate, but it tends to raise prices for the regulated sexual services, giving rise to a lower-cost parallel market of unregulated sex workers who are harder to reach. When prostitution was officially regulated in Melbourne, Australia, the number of brothels declined by two-thirds; the price of sex in brothels rose; and the number of lower-priced "streetwalkers" increased.

Similarly, attempts to restrict the supply of drugs or to put drug addicts in prison may not only fail to slow the rate of HIV transmission but may have the opposite effect. Efforts to control opium smoking in Bangkok and Calcutta induced addicts to switch from smoking to injecting heroin, increasing the risk of HIV transmission. The threat of imprisonment is notoriously ineffective in getting injecting drug users to quit; HIV spreads very rapidly among prisoners who continue to inject drugs using shared, improvised equipment, like ballpoint pens and rubber tubing, which are hard to sterilize.

It is difficult to measure the impact on HIV transmission of raising the costs of risky behavior because such behavior is often clandestine. Commercial sex or injecting drugs per se do not spread HIV - the failure to use condoms and the sharing of unsterilized needles and syringes do. Given the high costs of enforcement, the possibility that unsafe behavior may actually increase as a result of prohibitions, and evidence that people adopt safer behavior when the incentives are right, programs that reduce the costs of safer behavior are likely to be more cost effective in preventing HIV transmission.

Government priorities

Given the enormous consequences of HIV/AIDS, few people would debate the need for developing country governments to take action to curb the epidemic. But these governments are faced with numerous pressing demands and a shortage of funds. Which activities should receive priority?

Governments have two key responsibilities in preventing the spread of HIV/AIDS: reducing the negative externalities of high-risk behavior and producing public goods (see "Confronting AIDS" in this issue). Some societies will want to do more than this and may have the money to do so. But these two activities, which are essential for stopping the epidemic, are priorities for all governments because, without government action, private individuals and firms will not have the incentives to do what is necessary. Governments also have a responsibility to protect the poor, who will best be served in most countries by measures that prevent infection among high-risk individuals.

Preventing HIV among those most likely to spread it. Because of the negative externalities of high-risk behavior, governments must ensure effective prevention efforts among people most likely to contract and spread HIV. Preventive measures among people with many sexual partners, for example, will do more to protect those in the general population from infection than will preventive measures among people who have few sexual partners. A program for sex workers in Nairobi, Kenya, vividly illustrates this point. By treating the other sexually transmitted diseases of 500 sex workers and increasing their condom use to 80 percent, the program prevented 10,000 HIV infections a year among their clients, and the clients' spouses and other partners. In contrast, had condom use been raised to 80 percent of an equal number of men taken at random from the same community, fewer than 100 infections a year would have been prevented.

In setting priorities, therefore, prevention measures should first focus on prevention among people with the greatest risk of transmitting HIV [ILLUSTRATION FOR CHART 1 OMITTED]. As additional resources become available, prevention efforts can be extended progressively to people who are less likely to spread
the virus.

Simulations show that in countries where HIV infection levels are low, prevention of transmission among those with the very riskiest behavior may be sufficient to prevent a widespread epidemic. Even in countries where HIV is already widespread, it is likely to be the most cost-effective strategy in curbing the spread of HIV, although a much larger group must be covered to bring infection levels down quickly.

Directly or indirectly, governments of developing countries can successfully implement such programs on a wide scale. In Thailand, a multifaceted program increased condom use in brothels to more than 90 percent of sex workers [ILLUSTRATION FOR CHART 2 OMITTED]. At the same time, the number of patients with other sexually transmitted diseases, like gonorrhea and syphilis, has dropped by 90 percent. HIV infection among young army conscripts peaked at 4 percent in 1993; since then it has declined by more than half. Other countries, like Brazil and India, have succeeded in reaching those with the highest-risk behavior by enlisting nongovernmental organizations, which often have greater flexibility and more access to intended program participants, to implement programs.

Despite these successes, available evidence suggests that most countries have not reached the majority of people with the riskiest behavior.

* In surveys in seven African countries hard-hit by the epidemic, respondents were asked how they could protect themselves from getting AIDS. Of the respondents who had recently had a casual sexual partner, only 40-70 percent named condom use as a means of protection.

* People in the military are thought to have a high risk of contracting and spreading HIV because they are often stationed away from their families. A study of HIV/AIDS prevention measures in the militaries of 50 industrial and developing countries found that one-fifth of the militaries did not distribute condoms and that most of the others offered condoms free of charge but only on request.

* A survey of UNAIDS (Joint United Nations Programme on HIV/ADS) Country Programme Advisers for 32 developing countries found that public and private HIV prevention efforts rarely reached even half of the groups with high-risk behavior. In fact, many governments have impeded prevention efforts from reaching injecting drug users and men who have sex with men.

Providing information. Governments also need to invest in public goods essential to the control of HIV: monitoring infection and behavior, providing information on how HIV can be transmitted and prevented, and evaluating the costs and effects of different approaches. Likewise, bilateral and multilateral donors have a responsibility to invest in information that is an "international" public good: medical research on a vaccine that can be effective in developing countries; low-cost, effective treatments for AIDS in low-income countries; and evaluation of the cost-effectiveness of behavioral and medical interventions in the field.

The available evidence suggests that, for prevention efforts to succeed, many countries need to invest in information about the types and distribution of risky behavior in the population and, among those with risky behavior, the prevalence of HIV infection. However, fewer than 20 developing countries have carried out sexual behavior surveys. As recently as 1995, one-fourth of all developing countries had not yet initiated systematic monitoring of HIV prevalence. More than one-third of the 123 countries studied for Confronting AIDS had no information on HIV prevalence in populations with high-risk behavior during the past five years. Equally critical, very few studies have attempted to measure both the costs and effects of programs and almost none have included the prevention of secondary infections as one of the benefits.

The need to act now

Epidemiological models predict that between 1996 and 2001, 10 million to 30 million people in developing countries will become infected with HIV. But the future of the epidemic is not carved in stone. Action now can save millions of lives. Confronting AIDS classifies developing countries by the extent to which HIV has spread among people with the riskiest behavior and from them to the general population (Chart 3).

* 2.3 billion people (half of the population of the developing world) live in areas with "nascent" epidemics - that is, HIV has infected fewer than 5 percent of people presumed to have high-risk behavior. Bangladesh, Indonesia, the Philippines, and most countries of the former Soviet Union, as well as vast areas of China and India, fall into this category. Immediate action to prevent infection in the groups with the highest risk can avert a widespread epidemic.

* 1.6 billion people live in countries with "concentrated" epidemics - that is, more than 5 percent of the highest-risk individuals have been infected with HIV but the infection rate for the rest of the population is still low. Most of Indochina,

Latin America, and West Africa, as well as Yunnan Province of China and about half of India have concentrated epidemics Thailand's experience shows that concerted action focused on people with the riskiest behavior can have immediate impacts, even in a concentrated epidemic.

* About 250 million people live in countries with "generalized" epidemics. The rate of HIV infection in these countries is high in the groups with the riskiest behavior, and 5 percent or more of the women visiting antenatal clinics are infected, indicating that HIV has spread widely in the general population. Most countries in eastern and southern Africa, a few West African countries, and Guyana and Haiti fall into this category. These countries must cope with the impact of severe AIDS epidemics while maintaining strong prevention programs, especially among those most likely to spread the virus.

Mobilizing political support

Virtually every country that is confronting a severe AIDS epidemic once claimed: "It can't happen here." Initially, policymakers denied that the types of behaviors responsible for the transmission of the virus existed in their culture and blamed foreigners. But in each and every case they have been wrong.

It is not difficult to understand why denial is such a common response. When only a few people are sick, policymakers and the public have difficulty grasping the urgency of preventive measures; the programs needed to prevent transmission of the virus are often controversial; and other development problems seem more pressing. Unfortunately, denial robs society of precious time during which early and focused action could avert an epidemic. Because a long asymptomatic period - lasting 8-10 years - usually follows infection with HIV, by the time a significant number of AIDS cases appear and the public awakens to the threat of HIV/AIDS, many people will have been infected. At that point, preventing an epidemic is costlier and more difficult.

Programs that aim to prevent HIV among those with the riskiest behavior are controversial but they save lives. Without them, the epidemic cannot be stopped. Emotional responses are not a good guide to dealing with this public health problem. The public needs to understand that the most effective way of preventing an epidemic that could eventually affect all of us in some way is to encourage those most likely to contract and spread HIV to adopt safer behavior. Stigmatization of these individuals and discrimination against them are counterproductive. Only by facing these difficult issues will developing countries succeed in blunting the tragic impact of AIDS.

This article is based on a World Bank Policy Research Report, Confronting AIDS: Public Priorities in a Global Epidemic (New York: Oxford University Press for the World Bank, 1997).

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FOR FURTHER INFORMATION

Selected Articles and Reports

(Please contact the USIS IRC for copies of these reports)

Community-based HIV prevention in presumably undeserved populations -- July-September 1995 *The Journal of the American Medical Association,* March 19, 1997, Volume 277, Iss: 11, pp 876-877

The El Paso County Department of Health and Environment (Texas) conducted a study during Jul-Sep 1995 to assess the prevalence of high-risk behaviors for HIV infection, the acceptance of HIV counseling and testing and HIV seropositivity in populations of homeless, chemically dependent but not in treatment and mentally ill persons.

The study is described, and a CDC editorial note is included.

Holtzman, Deborah; Rubinson, Richard Parent and Peer Communication Effects on AIDS-related Behavior among U.S. high school students *Family Planning Perspectives,* Nov 1995, Volume 27 iss: 6, p. 235+
High school students who discussed HIV with their parents were less likely than those who did not to have had multiple sex partners, to have had unprotected sex and to have injected drugs. Young men were influenced more by discussions with peers, while young girls were more influenced by HIV discussions with parents.

Hwang, Mi Young Preventing HIV Infection: Intervention programs show promise for reducing risk in adolescents *The Journal of the American Medical Association,* May 20, 1998, Volume 279, Iss: 19, p. 1590+
Researchers recently found that intervention programs that taught abstinence and condom use may be effective in curbing risky sexual behavior that could lead to HIV exposure among teenagers. Information on how HIV is transmitted, how it progresses and how it can be prevented is offered.

Morton, Michael; Nelson, Lara; Walsh, Chantal; Zimmerman, Stephanie; Coe, Rodney M. Evaluation of a HIV/AIDS education program for adolescents *Journal of Community Health* February 1996, Volume 21, Iss: 1, p. 23+
Morton et al conducted a study to determine adolescent sexual behaviors and the efficacy of a medical student-run AIDS education program. The educational intervention did increase studnets' knowledge of HIV/AIDS.

National Institutes of Health, Consensus Development Statement Interventions to Prevent HIV Risk Behaviors, February 11-13, 1997
One in 250 people in the United States is infected with the human immunodeficiency virus (HIV), which causes AIDS; AIDS is the leading cause of death among men and women between the ages of 25 and 44. Every year, an additional 40,000-80,000 Americans become infected with HIV, mostly through behaviors that are preventable. In the United States, unsafe sexual behavior among men who have sex with men and unsafe injection practices among drug users still account for the largest number of cases. However, the rate of increase is greater for women than men, and there have been larger annual increases from heterosexual HIV transmission than among men who have sex with men.

The purpose of this conference was to examine what is known about behavioral interventions that are effective with different populations in different settings for the two primary modes of transmission: unsafe sexual behavior and nonsterile injection practices. Experts also provided the international and National epidemiology of HIV and a review of AIDS prevention efforts.

Rabin, Steve A; Porter, Robert W.; Porter/Novelli Application of Social Marketing Principles to AIDS Education, April 7, 1997, http://hivinsite.ucsf.edu/social/ota_reports/2098.2c59.html#1
This paper examines the application of social marketing to AIDS prevention in light of a double challenge - addressing a diversity of new and vulnerable audiences while sustaining past behavioral gains. The authors begin with some definitions of social marketing, offer an overview of the discipline's development, and identify some current trends. They then take a closer look at successful social marketing programs in cardiovascular risk reduction, cancer communications, and AIDS prevention projects overseas. The paper then touches upon two domestic AIDS prevention projects-the Prevention Marketing Initiative of the Centers for Disease Control, and a smaller, privately-funded condom promotion activity Project ACTION (in Portland, Oregon); both are in midstream and have yet to be evaluated. Finally, the authors discuss a number of marketing principles particularly relevant to future AIDS prevention efforts.

Randomized, Controlled, Community-Level HIV Prevention Intervention for Sexual Risk Behavior among Homosexual men in U.S. Cities, *The Lancet*, November 20, 1997
Summary: Background Community-level interventions may be helpful in population-focused HIV prevention. If members of populations at risk of HIV infection who are popular with other members can be engaged to advocate the benefits of behaviour change to peers, decreases in risk behaviour may be possible. We assessed a community-level intervention to lower the risk of HIV infection, focusing on men patronising gay bars in eight small US cities.

Unks, Gerald Will schools risk teaching about the risk of AIDS? *The Clearing House,* Mar/Apr 1996, Volume 69, Iss: 4, p. 205+
Concerning AIDS, the real issue for educators is whether the school will enter the battle against AIDS in a truly significant way. Unks examines a number of important topics, including teaching about behavorial change, open discussion of condoms in schools and HIV/AIDS awareness and sex education.

U.S. Department of Health and Human Services. "Public Health Reports: Behavioral Science in HIV Prevention", September 1, 1996
The AIDS Community Demonstration Projects (ACDP) were projects to prevent human immunodeficiency virus (HIV) infection and were funded by the Centers for Disease Control and Prevention (CDC) from 1989 in Dallas, TX; Denver, CO; Long Beach, CA; New York, NY; and Seattle, WA. The projects were designed to identify, recruit, intervene with, and asses members of the following "hard-to-reach" risk populations: (a) injecting drug users (IDUs) not involved in drug treatment programs; (b) female sex partners of injecting drug users; (c) women who exchanged sex for drugs, money, or other services; (d) youth who were runaways, dropouts, or who engaged in high-risk sexual and drug-using behavior; and (e) men who were having sex with men but do not identify themselves as homosexual.

SELECTED INTERNET SITES

- The National Institute of Mental Health, Office on AIDS
  http://www.nimh.nih.gov/oa/index.htm
  Provides information on the Office's research programs and other activities and news. An entire section is devoted to behavior change and prevention.

- CDC National AIDS Clearinghouse
  http://www.cdc.gov.nchstp/hiv_aids/hivinfo/nac.htm
  The Centers for Disease Control and Prevention's (CDC) National AIDS Clearinghouse is an activity of the Technical Information and Communications Branch, Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention. This site provides information and materials on HIV and AIDS to organizations involved in a variety of HIV/AIDS services.

- U.S. National Library of Medicine (NLM)
  http://www.nlm.nih.gov/
  A comprehensive health-care site including current news, reports and factsheets on AIDS and HIV.

- AIDS Virtual Library
  http://planetq.com/aidsvl/index.html
  This virtual library page deals with the social, political, and medical aspects of AIDS, HIV and related issues.

- Johns Hopkins AIDS Service
  http://www.hopkins-aids.edu/
  This web site provides access to the full-text of Johns Hopkins' staff publications. Sections are devoted to topics such as "Women's Issues in HIV" and "Prevention".

Selected Books

(Available for loan from USIS Johannesburg Lending Library)

- **Auerbach, Judith D, and Brodie, H. Keith H.** AIDS and behavior: an integrated approach. Washington, D.C.: National Academy Press, 1994.
- **Banta, William F.** AIDS in the workplace: legal questions and practical answers. Lexington, Mass: Lexington Books, 1988
- **Bender, David.** The Spread of AIDS. San Diego, CA: Greenhaven Press, 1997
- **Burkett, Elinor.** The Gravest show on earth: America in the age of AIDS. Boston: Houghton Mifflin Co., 1995
- Confronting AIDS: public priorities in a global epidemic. Oxford U. Press, 1997
- **Huber, Jeffrey T.** HIV/AIDS community information services: experiences in serving both at-risk and HIV-infected populations. New York: Haworth Press, 1996
- **Mann, Jonathan M.** AIDS in the world II; global dimensions, social roots, and responses. New York: Oxford University Press, 1996.
- **McKenzie, Nancy F.** The AIDS reader: social, political and ethical issues. New York, N.Y., U.S.A: Meridian, 1991
- **Nelkin, Dorothy, and Parris, Scott.** A Disease of society: cultural and institutional responses to AIDS. Cambridge [England: Cambridge University Press, 1991]
- **Rhodes, Tim.** AIDS, drugs and prevention: perspectives on individual and community action. London: Routledge, 1996.
- **Sepulveda Amor, Jaime, and Mann, Jonathan M.** AIDS: prevention through education: a world view. New York: Oxford University Press, 1992.
- **Winiarski, Mark G.** HIV mental health for the 21st century New York: New York University Press, 1997

Selected Videos

(Available for loan from USIS Johannesburg Lending Library)

- Frontline: Born in Africa
  This documentary, narrated by Peter Jennings, explores Philly Lutaaya's courageous battle against

AIDS and how he chose to program his misfortune in a positive direction by returning to Africa to help educate Ugandans about AIDS.

- On the edge - lives at risk: America responds to AIDS. 1994
- America responds to AIDS: it's your mover. October 5, 1994
- AIDS and sexually transmitted diseases. October 4, 1994.
  Contains information about the major sexually transmitted diseases, including AIDS, causative organisms, symptoms, potential risks and treatment.
- HIV-AIDS Prevention and treatment. April 5, 1994.
- America responds to AIDS. October 5, 1994.

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